

IN THE CLAIMS

1. (Currently Amended) A method for interprocess communication in a managed information architecture comprising:

receiving a registration from a service entity in the managed information architecture, the registration indicative of a significant occurrence in the managed information architecture and the service entity responsive to the significant occurrence;

establishing a persistent association of the service entity and the significant occurrence in response to the registration, ~~the persistent association independent of the enablement of the service entity~~, the persistent association providing a registered service entity, further including storing, in a global association table, an indication of the significant occurrence and an indication of the module containing the service entity, the global association table persistently independent of enablement of the module including the service entity corresponding to the significant occurrence;

receiving a notification message indicative of the significant occurrence in the managed information architecture;

identifying, via the persistent association, the corresponding registered service entity responsive to the significant occurrence;

enabling, if the identified registered service entity is disabled, a module including the service entity; and

invoking, via the persistent association, the service entity responsive to the significant occurrence.

2. (Original) The method of claim 1 further comprising

detecting, via a class entity operable to execute instructions in the context of state information, the significant occurrence, and

transmitting an indication message indicative of the significant occurrence to a module server operable to invoke the service entity.

3. (Original) The method of claim 1 further comprising

disabling the module including the service entity; and
selectively enabling, in response to the significant occurrence, the module including the service entity, wherein the persistent association is independent of enabling and disabling of the service entity.

4. (Original) The method of claim 1 wherein, following selectively enabling: enqueueing an indication of the significant occurrence a queue, the queue corresponding to the process including the module containing the service entity; and assigning, to a thread corresponding to the queue, performance of the service entity corresponding to the significant occurrence.

5. (Original) The method of claim 1 wherein the received registration employs a genericizing reference for identifying the service entity, the genericizing reference operable to avoid extraneous references and further operable for registration of a plurality of service entities, each of the service entities independent of references of other of the plurality of service entities.

6. (Original) The method of claim 1 wherein the invoking occurs in a different executable entity than the significant occurrence and wherein the detecting further comprises transmitting the indication message from the process corresponding to the significant occurrence to the module including the service entity corresponding to the significant occurrence.

7. (Original) The method of claim 1 wherein invoking further comprises:
identifying associated data indicative of the significant occurrence;
assembling an invocation call, the invocation call including a reference to the service entity and a reference to the identified associated data; and
executing the referenced service entity in the context of the referenced associated data.

8. (Original) The method of claim 7 wherein the executing further comprises a dispatch command, the dispatch command operative to enqueue multiple invocations to the same service entity, wherein the dispatch command references the associated data via a genericizing reference, the genericizing reference operable to include multiple types of associated data independently of the dispatched service entities employing the associated data.

9. (Original) The method of claim 1 further comprising:
identifying, in a memory portion operable for dynamic allocation, an allocation adapted to store the notification indicative of the significant occurrence;
tracking, via an allocation manager operable to manage portions of dynamic memory, references to the allocation; and
deallocating, following execution of the service entity corresponding to the significant occurrence, the allocation, the deallocation occurring in the same identified memory portion.

~~10. (Cancelled) The method of claim 1 wherein establishing the persistent association further comprises storing, in a global association table, an indication of the significant occurrence and an indication of the module containing the service entity, the global association table persistently independent of enablement of the module including the service entity corresponding to the significant occurrence.~~

11. (Original) The method of claim 1 wherein establishing the persistent association further comprising storing, in a local association table, an indication of the significant occurrence and an indication of the service entity corresponding to the significant occurrence.

12. (Original) The method of claim 1 wherein the service entities are handlers corresponding to executable methods and the indication messages are events

propagated by an invocation mechanism as a result of the significant occurrence service entity.

13. (Original) The method of claim 1 wherein associating an identity of the significant occurrence with a service entity occurs in a native language of the service entity and corresponding subscriber, and avoids a corresponding definition in an external interface language, the external interface language for generating additional code, the additional code adapted for support and testing operations.

14. (Original) The method of claim 13 wherein the external interface language is the Object Management Group Interface Definition Language (OMG/IDL).

15. (Original) A method for invocation of subscribers comprising:

receiving a subscription associative of a service entity and a significant occurrence, the service entity having instructions operative for executing and completing a particular task upon an indication of the significant occurrence;

associating the significant occurrence with the service entity, the association including a generic reference applicable to a plurality of service entities, the association further operable to selectively enable a module including the service entity upon the significant occurrence;

storing, in a global association table, an indication of the significant occurrence and an indication of the module containing the service entity, the global association table persistently independent of enablement of the module including the service entity corresponding to the significant occurrence;

receiving the indication of the significant occurrence;

determining, via the association, the corresponding service entity and the module including the service entity;

selectively enabling the module including the service entity; and
dispatching the service entity to execute and complete the time based task.

16. (Original) The method of claim 15 wherein the associating is performed by an association entry, the association entry further comprising a global entry and a local entry including an indication of the particular task.

17. (Original) The method of claim 16 wherein the global entry is operable to trigger enablement of the module including the local entry if the module is not enabled upon the notification of the significant occurrence.

18-20 Cancelled.

21. (Original) A services architecture for interprocess communication in a managed information system comprising:

a module server operable to receive a registration from a service entity in the managed information system, the registration indicative of a significant occurrence in the managed information system and the service entity responsive to the significant occurrence;

a service provider in the module server operable to establish a persistent association of the service entity and the significant occurrence in response to the registration, the persistent association independent of the enablement of the service entity, the persistent association providing a registered service entity for the service provided by the service entity;

an association mapping for storing the persistent association and adapted to map a received notification indicative of the significant occurrence in the managed information system, the service operable to identify, via the persistent association, the corresponding registered service entity responsive to the significant occurrence, the association mapping including a global association table, having an indication of the significant occurrence and an indication of the module containing the service entity, the global association table persistently independent of enablement of the module including the service entity corresponding to the significant occurrence; and

an activation manager operable to enable, if the identified registered service entity is disabled, a module including the service entity, the module server operable to invoke, via the persistent association, the service entity responsive to the significant occurrence.

22. (Original) The services architecture of claim 21 wherein the module server is in communication with a class entity adapted to detect the significant occurrence, and further operable to transmit an indication message indicative of the significant occurrence to the module server.

23. (Original) The services architecture of claim 21 further comprising an activation manager, the activation manager operable to:
disable the module including the service entity; and
selectively enable, in response to the significant occurrence, the module including the service entity, wherein the persistent association is independent of enabling and disabling of the service entity.

24. (Original) The services architecture of claim 21 wherein the module server is further operable to:
enqueue an indication of the significant occurrence a queue, the queue corresponding to the process including the module containing the service entity; and
assign, to a thread corresponding to the queue, performance of the service entity corresponding to the significant occurrence.

25. (Original) The services architecture of claim 21 wherein the received registration includes a genericizing reference for identifying the service entity, the genericizing reference adapted to avoid extraneous references and further operable for registration of a plurality of service entities, each of the service entities independent of references of other of the plurality of service entities.

26. (Original) The services architecture of claim 21 wherein the module server is further operable to invoke the service entity in a different executable entity than the significant occurrence, and further operable to transmit the indication message from the process corresponding to the significant occurrence to the module including the service entity corresponding to the significant occurrence.

27. (Original) The services architecture of claim 21 wherein the module server is further operable to

identify associated data indicative of the significant occurrence;

assembling an invocation call, the invocation call including a reference to the service entity and a reference to the identified associated data; and

execute the referenced service entity in the context of the referenced associated data.

28. (Original) The services architecture of claim 27 wherein module server is further operable to execute a dispatch command, the dispatch command operative to enqueue multiple invocations to the same service entity, wherein the dispatch command references the associated data via a genericizing reference, the genericizing reference operable to include multiple types of associated data independently of the dispatched service entities employing the associated data.

29. (Original) The services architecture of claim 21 further comprising a memory/heap manager operable to identify, in a memory portion operable for dynamic allocation, an allocation adapted to store the notification indicative of the significant occurrence, the memory/heap manager further operable to tracking references to the allocation, and to deallocate, following execution of the service entity corresponding to the significant occurrence, the allocation, the deallocation occurring in the same identified memory portion.

30. (Original) The services architecture of claim 21 further comprising a global association table operable to store the persistent association including an indication of the significant occurrence and an indication of the module containing the service entity, the global association table persistently independent of enablement of the module including the service entity corresponding to the significant occurrence.

31. (Original) The services architecture of claim 21 further comprising storing a local association table adapted to store an indication of the significant occurrence and an indication of the service entity corresponding to the significant occurrence.

32. (Original) The services architecture of claim 21 wherein the service entities are handlers corresponding to executable methods and the indication messages are events propagated by an invocation mechanism as a result of the significant occurrence
Service entity

33. (Cancelled)

34. (Currently Amended) A computer program product having a computer readable storage medium operable to store computer program logic embodied in computer program code encoded thereon that, when executed by a processor responsive to instructions in the computer program code cause the computer to perform a method for interprocess communication in a managed information architecture, the method comprising:

~~computer program code for~~ receiving a registration from a service entity in the managed information architecture, the registration indicative of a significant occurrence in the managed information architecture and the service entity responsive to the significant occurrence;

~~computer program code for~~ establishing a persistent association of the service entity and the significant occurrence in response to the registration, the persistent association independent of the enablement of the service entity, the persistent

association providing a registered service entity, further including storing, in a global association table, an indication of the significant occurrence and an indication of the module containing the service entity, the global association table persistently independent of enablement of the module including the service entity corresponding to the significant occurrence;

~~computer program code for receiving a notification indicative of the significant occurrence in the managed information architecture;~~

~~computer program code for identifying, via the persistent association, the corresponding registered service entity responsive to the significant occurrence;~~

~~computer program code for enabling, if the identified registered service entity is disabled, a module including the service entity; and~~

~~computer program code for invoking, via the persistent association, the service entity responsive to the significant occurrence.~~

35. (Cancelled)

36. (Currently Amended) A services architecture for interprocess communication in a managed information comprising:

means for receiving a registration from a service entity in the managed information architecture, the registration indicative of a significant occurrence in the managed information architecture and the service entity responsive to the significant occurrence;

means for establishing a persistent association of the service entity and the significant occurrence in response to the registration, the persistent association independent of the enablement of the service entity, the persistent association providing a registered service entity, further including means for storing, in a global association table, an indication of the significant occurrence and an indication of the module containing the service entity, the global association table persistently independent of enablement of the module including the service entity corresponding to the significant occurrence;

means for receiving a notification indicative of the significant occurrence in the managed information architecture;

means for identifying, via the persistent association, the corresponding registered service entity responsive to the significant occurrence;

means for enabling, if the identified registered service entity is disabled, a module including the service entity; and

means for invoking, via the persistent association, the service entity responsive to the significant occurrence.

37. (New) The method of claim 1 wherein the persistent association is defined by a set of tables including the association, the set of tables for traversing the published significant occurrence from the detecting class entity to the service entity to be invoked as a result of the significant occurrence, at least one of the set of tables being a persistent table, the persistent table remaining active beyond the activation of the service entity.

38. (New) The method of claim 1 further wherein the global association table correlates the significant occurrences to the interoperable object reference (IOR) of the module containing the service entity, further comprising a local association table, the local association table correlating the significant occurrence to the handler responsive to the significant occurrence

39. (New) The method of claim 38 wherein establishing the persistent association further comprises storing, in the local association table, the indication of the significant occurrence and an indication of the service entity corresponding to the significant occurrence, the local association table and the global association table collectively defining the persistent association.

40. (New) A method for interprocess communication in a managed information architecture comprising:

receiving a registration from a service entity in the managed information architecture, the registration indicative of a significant occurrence in the managed information architecture and the service entity responsive to the significant occurrence;

establishing a persistent association of the service entity and the significant occurrence in response to the registration, the persistent association independent of the enablement of the service entity, the persistent association providing a registered service entity;

receiving a notification message indicative of the significant occurrence in the managed information architecture;

identifying, via the persistent association, the corresponding registered service entity responsive to the significant occurrence;

enabling, if the identified registered service entity is disabled, a module including the service entity, wherein the service entities are handlers corresponding to executable methods and the indication messages are events propagated by an invocation mechanism as a result of the significant occurrence service entity; and

invoking, via the persistent association, the service entity responsive to the significant occurrence, invoking further comprising:

identifying associated data indicative of the significant occurrence;

assembling an invocation call, the invocation call including a reference to the service entity and a reference to the identified associated data; and

executing the referenced service entity in the context of the referenced associated data, executing further comprising a dispatch command, the dispatch command specific to the handler responsive to the significant occurrence and operative to enqueue multiple invocations to the same service entity.